

- 2 -

Appl. No. 10/634,873
Amendment dated February 28, 2005
Reply to Advisory Action of January 11, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (currently amended) A sawdust-free cutting apparatus comprising:
a frame,
a guide mounted to said frame for guiding a workpiece along a feed path having a cutting zone,
at least one circular blade mounted in said cutting zone and driven in rotation about an axis transversal to said feed path, said circular blade having a toothless circumferential cutting edge,
a source of power driving said circular blade about said axis, and
~~a feeder advancing the workpiece to be cut through said cutting zone at a linear speed substantially equal to a tangential speed at said toothless circumferential cutting edge of said circular blade, wherein said at least one circular blade tapers on each blade side around the toothless circumferential cutting edge, wherein said guide includes a roller mounted on one side of said feed path and biased in rolling engagement with a side of the workpiece while the workpiece is advanced along said feed path, wherein said roller is rotatably mounted on a pivot plate, said pivot plate being pivotally mounted for pivotal movement about an axis normal to a support surface of said frame, wherein said roller is maintained in contact with the workpiece by a piston and cylinder arrangement, and wherein said piston and cylinder arrangement includes a piston pivotally connected to said pivot plate, the piston being linearly slidably in a cylinder pivotally connected to a base plate to which said pivot plate is mounted.~~
2. (cancelled)
3. (currently amended) A sawdust-free cutting apparatus as defined in claim 21, wherein an axially extending gliding surface is provided on a side of said feed path opposite said roller, the roller pushing the workpiece against said gliding surface.

- 3 -

Appl. No. 10/634,873

Amendment dated February 28, 2005

Reply to Advisory Action of January 11, 2005

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (currently amended) A sawdust-free cutting apparatus as defined in claim 6, wherein said base plate is adjustably mounted to said support surface of said frame for releasably securing the base plate at various distances from an axially extending gliding surface provided on a side of said feed path opposite said roller.

8. (previously amended) A sawdust-free cutting apparatus as defined in claim 3, wherein said axially extending gliding surface is adjustably mounted to a support surface of said frame.

9. (previously amended) A sawdust-free cutting apparatus as defined in claim 1, wherein said source of power includes a single motor, and wherein said circular blade and said feeder are driven by said single motor through a gear box having first and second outputs respectively connected to first and second transmissions configured to ensure a linear speed ratio of 1:1 between the tangential speed at the circumferential cutting edge of the blade and the advancing speed imparted to the workpiece by the feeder.

10. (previously amended) A sawdust-free cutting apparatus as defined in claim 1, wherein said feeder includes a power driven feed roller adapted to frictionally engage a top surface of the workpiece.

11. (previously amended) A sawdust-free cutting apparatus as defined in claim 10, wherein said feeder further includes a power driven discharge roller adapted to frictionally engage the top surface of the workpiece to be cut, said feed and discharge roller being respectively located upstream and downstream of said circular blade relative to a direction of travel of the workpiece through the apparatus.

- 4 -

Appl. No. 10/634,873
Amendment dated February 28, 2005
Reply to Advisory Action of January 11, 2005

12. (previously amended) A sawdust-free cutting apparatus as defined in claim 10, wherein said power driven feed roller is supported by an overhead mounting structure comprising a roller mounting plate mounted for vertical sliding movement along a vertical guide.
13. (previously amended) A sawdust-free cutting apparatus as defined in claim 12, wherein a biasing structure acts on the roller mounting plate for translating and positioning the feed roller against the top surface of the workpiece to be processed.
14. (previously amended) A sawdust-free cutting apparatus as defined in claim 13, wherein said biasing structure includes a piston and cylinder arrangement.
15. (previously amended) A sawdust-free cutting apparatus as defined in claim 1, wherein said at least one circular blade includes upper and lower circular blades, and wherein the blades are driven in opposite direction by said source of power so that the tangential speed at the periphery thereof be equal to the advancing speed of the workpiece to be cut.
16. (previously amended) A sawdust-free cutting apparatus as defined in claim 15, wherein said upper and lower circular blades are coplanar and placed slantwise behind each other.